

PATENT
P53706CLAIM AMENDMENTS

Claims 1-24 have been canceled. Claims 25-35 are newly added.

1 25. (new) A printing apparatus for printing video data generated by a computer,
2 comprising:

3 a data bus connected to said computer, said data bus having a first data line for conveying
4 input video data generated by said computer to said printing apparatus and a second data line for
5 conveying dividing ratio data generated by said computer, and accompanying said input video data,
6 to said printing apparatus;

7 an output port connected to said second data line for receiving and storing said dividing
8 ratio data;

9 a clock signal generator for generating a local clock signal exhibiting a plurality of pulses
10 characterized by a first frequency;

11 a first divider for generating a first clock signal by dividing pulses of said local clock
12 signal, said first clock signal having a plurality of pulses characterized by a second frequency
13 different from said first frequency;

14 a second divider for generating a second clock signal by dividing said pulses of said local
15 clock signal in dependence upon the stored dividing ratio data, the stored dividing ratio data being
16 output from said output port, said second clock signal having a plurality of pulses characterized
17 by a third frequency different from said first and second frequencies and established in dependence
18 upon said stored dividing ratio data;

PATENT
P53706

12 a data transmitter for converting said input video data into serial video data in response
13 to said first clock signal, and for transmitting said serial video data in response to a horizontal
14 synchronization signal;

15 a chopping unit for receiving said serial video data transmitted by said data transmitter, and
16 in response to said second clock signal, generating chopped serial video data;

17 a print controller for generating beam data in response to said chopped serial video data;
18 and

19 a laser beam generator for generating a scanning laser beam for defining images
20 corresponding to said beam data, and generating a beam detection signal derived from the scanning
21 of said scanning laser beam; and

22 said print controller generating said horizontal synchronizing signal in response to said
23 beam detection signal.

26. (new) The printing apparatus as set forth in claim 25, said chopping unit comprising
an AND gate having a first input port coupled to receive said serial video data transmitted by said
data transmitter and a second input port coupled to receive said second clock signal.

27. (new) The printing apparatus as set forth in claim 25, further comprised of a mode
selector enabling a user to change a characteristic of said second clock signal.

28. (new) The printing apparatus as set forth in claim 26, further comprised of a mode

PATENT
P53706

2 selector enabling a user to change a characteristic of said second clock signal.

1 29. (new) The printing apparatus as set forth in claim 26, further comprised of a mode
2 selector enabling a user to double the frequency of said second clock signal.

30. (new) A printing apparatus for printing video data generated by a computer,
comprising:

3 a data bus connected to said computer, said data bus having a first data line for conveying
4 input video data generated by said computer to said printing apparatus and a second data line for
5 conveying dividing ratio data generated by said computer, and accompanying said input video data,
6 to said printing apparatus;

7 an output port connected to said second data line for receiving and storing said dividing
8 ratio data;

9 a clock signal generator for generating a local clock signal exhibiting a plurality of pulses
10 characterized by a local frequency;

11 a clock divider for dividing pulses of said local clock signal to generate a first clock signal
12 and a second clock, said first clock signal having a plurality of pulses characterized by a second
13 frequency different from said local frequency, and said second clock signal being established in
14 dependence upon said stored dividing ratio data to having a plurality of pulses characterized by
15 a third frequency different from said local and first frequencies;

16 a data transmitter for converting said input video data into serial video data in response

PATENT
P53706

17 to said first clock signal, and for transmitting said serial video data in response to a horizontal
18 synchronization signal;

19 a chopping unit for receiving said serial video data transmitted by said data transmitter, and
20 in response to said second clock signal, generating chopped serial video data;

21 a print controller for generating beam data in response to said chopped serial video data;

22 and

23 a laser beam generator for generating a scanning laser beam for defining images
24 corresponding to said beam data, and generating a beam detection signal derived from the scanning
25 of said scanning laser beam; and

26 said print controller generating said horizontal synchronizing signal in response to said
27 beam detection signal.

1 31. (new) The printing apparatus as set forth in claim 30, further comprised of a mode
2 selector enabling a user to double the frequency of said second clock signal.

1 32. (new) The printing apparatus as set forth in claim 30, said chopping unit comprising
2 an AND gate having a first input port coupled to receive said serial video data transmitted by said
3 data transmitter and a second input port coupled to receive said second clock signal.

1 33. (new) The printing apparatus as set forth in claim 31, said chopping unit comprising
2 an AND gate having a first input port coupled to receive said serial video data transmitted by said

PATENT
P53706

3 data transmitter and a second input port coupled to receive said second clock signal.

4 34. (new) A method for controlling a laser signal in an electrophotographic developing
5 type reproduction apparatus, said method comprising the steps of:

6 conveying input video data, generated by a data source, to said electrophotographic
7 developing type reproduction apparatus over a data bus connected to said data source;

8 conveying dividing ratio data, generated by said data source, to said electrophotographic
9 developing type reproduction apparatus over said data bus connected to said data source;

10 separating said dividing ratio data from said input video data;

11 storing the dividing ratio data, separated from said input video data, in memory;

12 generating a local clock signal exhibiting a plurality of pulses characterized by a first
13 frequency;

14 generating a first clock signal by dividing pulses of said local clock signal, said first clock
15 signal having a plurality of pulses characterized by a second frequency different from said first
16 frequency;

17 outputting said dividing ratio data from said memory;

18 generating a second clock signal by dividing said pulses of said local clock signal in
19 dependence upon the dividing ratio data output from said memory, said second clock signal having
20 a plurality of pulses characterized by a third frequency different from said first and second
21 frequencies and established in dependence upon said stored dividing ratio data;

22 converting said input video data into serial video data in response to said first clock signal,

PATENT
P53706

23 and transmitting said serial video data in response to a horizontal synchronization signal;
24 receiving said serial video data transmitted by said data transmitter, and in response to said
25 second clock signal, generating chopped serial video data;
26 generating beam data in response to said chopped serial video data; and
27 generating a scanning laser beam for defining images corresponding to said beam data, and
28 generating a beam detection signal derived from the scanning of said scanning laser beam; and
29 generating said horizontal synchronizing signal in response to said beam detection signal.

1 35. (new) The method as set forth in claim 34, further comprising a step of doubling the
2 frequency of said second clock signal.
